

14. (NEW) An electric machine (2) with an external stator and an inward situated rotor rotatably borne on bearings, which possesses a sheet metal, laminate rotor pack (18) and a rotor shaft (4) rotationally fixed thereto, and which rotor shaft (4) is designed as a webbed shaft and exhibits on its circumference a plurality of webs (28, 46), therein characterized, in that the webs (28, 46) to form small heat transfer surfaces, lie on nearly linelike touching surfaces of the laminate rotor pack (18) or lie on a provided, hollow, intermediate shaft (26) located between the laminate rotor pack (18) and the rotor shaft (4).

15. (NEW) The electrical machine (2) according to claim 14, wherein the cross-section of the rotor shaft (4) is designed in the shape of a star with four webs (28).

16. (NEW) The electrical machine (2) according to claim 14, wherein the rotor shaft (4) is designed in the shape of three sickle shaped webs (46).

17. (NEW) The electrical machine (2) according to claim 14, wherein rotor shaft (4) possesses webs (28, 46) which are in the form of diffuser blades.

18. (NEW) The electrical machine (2) according to claim 14, wherein the rotor shaft (4) was designed in the form of a screw conveyor.

19. (NEW) The electrical machine (2) according to claim 14, wherein the webs (28, 46) are interrupted and do not lie over their composite length on the interposed shaft (26), which is to say, the rotor laminate pack.

20. (NEW) The electrical machine (2) according to claim 14, wherein the rotor shaft is made as a separate drop forging or by precision casting and is force fit into the hollow interposed shaft (26), that is, the rotor laminate pack (18), for the purpose of achieving a press fit.

21. (NEW) The electrical machine (2) according to claim 14, wherein the rotor shaft (4) is made from a material of poor heat conductivity.

22. (NEW) The electrical machine (2) according to claim 21, wherein the material of poor heat conductivity is a highly alloyed steel.

23. (NEW) The electrical machine (2) according to claim 21, wherein the material of poor heat conductivity is titanium.

24. (NEW) The electrical machine (2) according to claim 14, wherein in the space between the rotor laminate pack (18), that is, the hollow interposed shaft (26) with webs (28, 46) and the rotor shaft (4), a cooling medium can be conducted therethrough.

25. (NEW) The electrical machine (2), in accord with Claim 11, therein characterized, in that the cooling medium is air.

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REMARKS

Please enter the above before consideration of this application. With respect to the above newly entered claims, the subject matter of the Chapter II amended claims is editorially revised and rewritten to bring that subject matter into conformity with the United States claim format.

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,



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